

HANDBOOK OF PHONOLOGICAL DATA  
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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970 Guarani	970 Guarani	970 Guarani
970 01 p <sup>01</sup>	(free) */u/	51 i *[yod] [i-half-voice] 12 67
970 02 t <sup>01</sup>	15 m [b-prenasalized] 63	52 i-nasalized <sup>13</sup> [i-nasalized-weak] 68
970 03 k <sup>01</sup>	16 n <sup>07</sup> [d-prenasalized] 63	53 e <sup>14</sup> [e-mid] 69 [iota] 70 (free)
970 04 k-labialized <sup>01</sup>	17 n-palatal [j] 08 64 [yod] 65 (allo, free) */i/ [z-laminal] 06 66 (free)	54 e-nasalized <sup>13</sup> [e-nasalized-weak] 68
970 05 t/s-hacek <sup>02 30</sup> (loan)	18 eng [g-prenasalized] 63	55 i-bar [i-bar-half-voice] 12 67 [yod-dot] 71 (free)
970 06 f <sup>30</sup> (loan)	19 eng-labialized [g-prenasalized-labialized] 63	56 i-bar-nasalized <sup>15</sup> [i-bar-nasalized-weak] 68
970 07 v <sup>03</sup> [v-nasalized] 60 [beta] 61 (free)	20 ʃ <sup>30 34</sup> (loan) [l-nasalized] 60	57 a <sup>16</sup>
970 08 eth <sup>04 30</sup> (loan)	21 l-palatal <sup>30</sup> (loan)	58 a-nasalized <sup>13</sup> [a-nasalized-weak] 68
970 09 s <sup>05</sup>	22 r-flap <sup>10</sup> [r-flap-nasalized] 60	59 u <sup>17</sup> *[w] [u-half-voice] 12 67
970 10 s-laminal <sup>06</sup>	23 r-trill <sup>11 30</sup> (loan)	60 u-nasalized <sup>15</sup> [u-nasalized-weak] 68
970 11 x [h] (free)	24 glottal stop	61 o <sup>14 17</sup>
970 12 x-labialized <sup>30</sup> (loan)		62 o-nasalized <sup>13</sup> [o-nasalized-weak] 68
970 13 gamma <sup>03</sup> [gamma-nasalized] 60		
970 14 gamma-labialized <sup>03</sup> [gamma-labialized-nasalized] 60 [w] 62		

- 970 \$a Guarani \$A Tupi \$d Tupi \$e E Paraguay \$f over 1 million \$g Marilyn Vihman \$g John Crothers (review)
- 970 \$a Gregores, Emma \$a Suarez, Jorge A. \$b 1967 \$c A description of Colloquial Guarani \$f (Janua Linguarum, Series Practica, 27) \$g The Hague: Mouton
- 970 \$a Lunt, Horace G. \$b 1973 \$c Remarks on Nasality: The Case of Guarani \$e A Festschrift for Morris Halle, ed. by S. R. Anderson, pp. 131-139. \$g New York: Holt, Rinehart and Winston
- 970 \$a Uldall, Elizabeth \$b 1956 \$c Guarani Sound System \$d IJAL 20:4.340f.
- 970 \$a INTONATION \$A See p.75-78.
- 970 \$a NASAL PROSODY \$A Guarani has a nasalization prosody which extends through stems and also through any prefixes (which include all the inflectional morphemes), which thus must agree in nasality with the stem. Some suffixes take on the nasality of the stem, or of the following word; a few suffixes determine the nasality of the stem; but most suffixes remain invariable as to nasality, being always either nasal or non-nasal. (p.100) This last case leads to words with a prosodic break between stem and suffix. (p.68) \$A Manifestations of nasality: The stressed vowel of a stem may be nasal, and nasal consonants may appear freely as well. Within a nasal prosody, however, the release of the nasal consonants is nasal, while in an oral prosody it is oral (i.e., the prenasalized obstruent allophones of the nasal consonants appear in oral prosodies: see below). Additionally, unstressed vowels and all the approximants show varying degrees of nasalization depending on their distance from the primary nasal vowels and nasal consonants. \$A Allophones of nasal consonants: Anywhere within a prosodic unit (prefix plus stem) preceding a stressed nasal vowel, only the fully nasal allophones of the nasal consonants, [m], [n], [ɲ], and [ɲɲ-labialized], may occur. Further, if a nasal consonant of

either type (pure nasal or prenasalized stop) occurs anywhere within a prosodic unit, only the fully nasal allophones of the nasals are allowed in preceding positions. Thus, the prenasalized stop allophones [b-prenasalized], [d-prenasalized], etc. may occur within a prosodic unit anywhere before a stressed oral vowel, provided that no nasal consonant of any kind intervenes between the stressed vowel and the prenasalized consonant. §A Nasalization of unstressed vowels: All the vowels within a nasal prosodic unit take on the nasality of the stressed nasal vowel to some degree, being less and less strongly nasalized as distance from the stressed vowel increases. In addition, vowels preceding a nasal consonant (whether "pure" nasal or prenasalized stop) are nasalized to some degree, again decreasing with distance. Thus a sequence of increasingly nasalized vowels may lead up to either a nasal consonant or a stressed nasal vowel or both. §A "With the unstressed syllables preceding a nasal consonant, [nasalization] is automatically present and is never strong. Elsewhere, nasalization occurs covering a span of variable length, in which the velum appears to be lowered increasingly from medium to strong, so that the nasal timbre is strongest toward the end of the nasal span: this position constitutes a natural peak or center of some sort within the span...and coincides most often with the occurrence of stress." (p.66) "The beginning of a nasal span is clearly marked, either by pause, or by the occurrence of a stressed nonnasal syllable, or by the occurrence of another nasal center. Its end is clearly marked only when pause or a stressed nonnasal syllable immediately follows the center. Otherwise the unstressed syllables following the center are weakly and decreasingly nasalized, until either a pause or a stressed nonnasal syllable is reached." (p.65f)

- 970 §a STRESS §A Each word has one primary stress, which falls on the last syllable of the stem or on a suffix. Most suffixes take stress, but a few do not. In compounds a secondary stress occurs on the last syllable of the first component. (See p.100-102.)
- 970 §a SYLLABLE §A (C)V §A Very rarely (in 3 morphemes) a syllable may be closed by a nasal (/m, n, ɲ/) followed by a homorganic voiceless stop beginning the next syllable. (p.60)
- 970 01 §A The stops are described as "tense" under loud stress (p.39); tenseness not defined.
- 970 02 §A The symbol for /t/s-hacek/ (p.91) indicates same type of articulation as /s-laminal/.
- 970 03 §A /v, gamma/ are each described as a "frictionless...spirant." (p.81) /v/ and /gamma/ are on the borderline between obstruent and approximant articulation. Statements by Gregores & Suarez are difficult to interpret in precise phonetic terms. Uldall uses the symbols "v" and "gamma." Both function like the sonorants /l, r-flap/ with respect to nasalization.
- 970 04 §A /eth/ is described as a "dental frictionless spirant." (p.91)
- 970 05 §A /s/ is produced with the "tip of the tongue almost between the teeth; sometimes heard as very close to [theta]" (p.80)
- 970 06 §A Point of articulation and articulator for /s-laminal/ and /z-laminal/ somewhat unclear. Compare p.80, 82 and p.32-33.
- 970 07 §A /n/ is "very advanced; the tip of the tongue may be seen between the teeth." (p.81)
- 970 08 §A All sources agree there is no prenasalization of [j].
- 970 10 §A Uldall notes possible retroflex articulation of /r-flap/ before nasalized vowels.
- 970 11 §A /r-trill/ is described as an "apical trill accompanied by a laminal spirant." (p.88)
- 970 12 §A Uldall identifies the voiceless element of [i-half-voice, i-bar-half-voice, u-half-voice] as a fricative; G & S as /x/. (p.83)
- 970 13 §A Nasalization of /i-nasalized, e-nasalized, a-nasalized, o-nasalized/ not as strong as in French. (p.67)
- 970 14 §A Uldall clearly identifies /e, o/ as higher-mid. G & S use the term "low," simply in contrast with "high."
- 970 15 §A /i-bar-nasalized, u-nasalized/ are strongly nasalized. (p.66)
- 970 16 §A /a/ "has higher variants (central or somewhat fronted)" (p.49); no detail given.
- 970 17 §A /u, o/ are described as "slightly rounded." (p.36)
- 970 30 §A /t/s-hacek/, /f/, /eth/, /x-labialized/, /l/, /l-palatal/, and /r-trill/ occur only in unassimilated Spanish loans. Generally /t/s-hacek/ is replaced by /s-laminal/, /f/ by /p/ or sometimes /v/, /eth/ and /r-trill/ by /r-flap/, /l-palatal/ by [yod] or /i/. (p.89f)
- 970 34 §A /l/ has "low list frequency--though not...low text frequency."
- 970 60 §A /v, gamma, gamma-labialized, l, r-flap/ are nasalized before a nasalized vowel.

- 970 61    \$A Gregores & Suarez say that their informants always used [v], but accepted [beta] (p.81), while Uldall says the two are in free variation.
- 970 62    \$A [w] as variant of /gamma-labialized/ occurs especially in intervocalic position. (p.57) See also p.82. [w] is also free variant of /u/ when unstressed adjacent to a vowel. (p.83)
- 970 63    \$A The nasals are realized as prenasalized stops before oral vowels.
- 970 64    \$A /n-palatal/ is realized as [ɲ] word initially before oral vowels.
- 970 65    \$A [yod] is an allophone of /n-palatal/ between oral vowels. [yod] is a free variant of /i/ when unstressed adjacent to a vowel.
- 970 66    \$A [z-laminall] is an occasional variant of [yod]. (Lunt (p.132) notes that his informants (interviewed in the U.S.) rejected this variant.)
- 970 67    \$A /i, i-bar, u/ are half-voiced word finally.
- 970 68    \$A Unstressed vowels are weakly nasalized in a nasal prosodic span, i.e. followed by a nasal consonant or in a word with a stressed nasal vowel. Also, a stressed nasal vowel is only weakly nasalized if it is preceded by a nasal consonant. (p.66-67)
- 970 69    \$A /e/ is realized as [e-mid] word finally. (Uldall) G & S do not mention this.
- 970 70    \$A /e/ may be realized as [iota] in pretonic syllables and when unstressed in final position. (p.82)
- 970 71    \$A /i-bar/ may be realized as [yod-dot] when unstressed adjacent to another vowel. (p.83)